

REMARKS

I. Overview

These remarks are set forth in response to the Non-Final Office Action mailed 11-12-2008. As this amendment has been timely filed within the three-month statutory period, neither an extension of time nor a fee is required. Presently, claims 1 through 20 are pending in the Patent Application. Claims 1, 10 and 19 are independent in nature. In the Non-Final Office Action, claims 1-20 have been rejected on cited art as defined below:

- Claims 1, 4-6, 10, 13-15 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ignasi Esquerra et al., Design of a Phonetic Corpus for Speech Recognition in Catalan, Universitat Politècnica de Catalunya (Barcelona, Spain 1998), hereinafter "Esquerra," in view of Applicant's admitted prior art.
- Claims 2-3, 7-8, 11-12, 16-17 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Applicant's admitted prior art and further in view of U.S. Patent No. 5,794,189 to Gould, hereinafter "Gould."
- Claims 9 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Applicant's admitted prior art and further in view of Dept. of Psychology, Univ. of Essex ("Phoneme Search"), hereinafter "Essex."
- Claims 1, 4-6, 10, 13-15 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Newman, U.S. Pat. No. 6151575, hereinafter "Newman."

- Claims 2-3, 7-8, 11-12, 16-17 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Newman and further in view of Gould.
- Claims 9 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Newman and further in view of Essex.

II. The Applicant's Invention

The Applicant has invented a system, method and apparatus for a phonetic coverage interactive tool for developing a script to be used with speech recognition systems. A script development tool is a software or computing application which is operated by a user or developer. The tool incorporates a language model for the particular language to be used with the speech recognition application for which the script is to be used. Included in the language model is a particular speech products vocabulary which defines the set of speech products, or words, that the language model uses, and that the tool will recognize.

In operation, the tool receives a starting script as an input and analyzes the words and phonemes in the script, given the particular language model and the speech products vocabulary. It thereafter produces a set of statistical results as an output, which mainly include statistics as to the particular phonetics of the starting script. These "phonetic statistics" may include data as to the number of times each phoneme, as defined by the language model, occurs in the script, or data as to which phonemes do not appear at all in the script. The user will then inspect the results, on any device which is capable of

reproducing the results in a perceptible form, and decide whether any changes need to be made in the script.

If the script is lacking in certain phonemes, the user may then enter a word containing the missing phonemes into the script development tool, which updates the script, and reanalyzes the script to produce a new set of statistics. These statistics can thereafter be reanalyzed for phoneme coverage, and so forth. In addition to adding words to the script, the user may also remove words, if the phoneme coverage is not as uniform as desired. In this way, the tool can be used to take a given script and correct the phoneme coverage for the script, for any given language. Additionally, the tool greatly reduces the amount of time required to develop such a script, and gives developers an instant picture of the phonetic statistics of any script, as it is developed.

III. Characterization of the Cited Art

Characterizations of Esquerra, Gould and Essex are provided in Applicant's previous communication to the U.S. Patent and Trademark Office of July 30, 2008.

Newman

Newman discloses a source-adapted model for use in speech recognition, wherein the model is generated by defining a linear relationship between a first element of an initial model and a first element of the source-adapted model. Thereafter, speech data that corresponds to the first element of the initial model is assembled from a set of speech data for a particular source associated with the source-adapted model. A linear transform that maps between the assembled speech data and the first element of the initial model is

then determined. Finally, a first element of the source-adapted model is produced from the first element of the initial model using the linear transform

IV. Rejection of Claims 1, 4-6, 10, 13-15 and 19 under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 1, 4-6, 10, 13-15 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Applicant's admitted prior art. The Applicant respectfully disagrees and traverses the Examiner's rejection.

In the Office Action, the Examiner construes the claim limitation "language phoneme data" to mean phoneme data associated with a language. The Examiner goes on to recite section 2 of Esquerra (and specifically the Esquerra phrase "reference corpus") in support of the notion that Esquerra discloses the claim limitation "language phoneme data" of independent claims 1, 10 and 19.

Applicant has amended the claim limitation "language phoneme data" so as to limit the construction of the claim limitation to "an exhaustive list of phonemes occurring in a given language." Thus, the claim limitation "language phoneme data" refers to a list of phonemes that represent all of the possible phonemes for a given language.

Under this new claimed definition of "language phoneme data," Esquerra's "reference corpus" can no longer be equated to the claim limitation "language phoneme data." Esquerra's "reference corpus" comprises text from a newspaper, interviews and articles and therefore constitutes a simple anecdote or sample of a language. This is vastly different from a definitive or exhaustive list of phonemes for a given language. Esquerra's "reference corpus" is plain language text that conveys information or ideas while the claim limitation "language phoneme data" is a list of phonemes. Esquerra's

“reference corpus,” therefore, does not disclose the claim limitation “language phoneme data” of independent claims 1, 10 and 19

Next, in the Office Action, the Examiner goes on to equate the “phonemes” claim limitation of independent claims 1, 10 and 19 with Esquerra’s “units” which refer to phones including allophones and diphones. The Examiner asserts in the Office Action that with regard to the claim language, a count for an allophone is a count for a phoneme and therefore, as far as the count information is concerned, an allophone is interchangeable with a phoneme. The Examiner further points out in the Office Action, however, that a count of solely phonemes (not allophones) in the script data would be construed differently and he even suggest the following claim language: wherein count data comprises a total number of appearances in the script data of a phoneme from the phoneme language data. Applicant has, therefore, amended the claim limitation “count data” as suggested by the Examiner. The aforementioned claim amendment specifies that the “count data” claim element refers solely to the number of appearances phonemes, not allophones or diphones. Therefore, under this new definition of “count data,” Esquerra’s “units,” comprising allophones and diphones, do not disclose the “phonemes” claim limitation of independent claims 1, 10 and 19.

Therefore, neither Esquerra nor Applicant’s admitted prior art discloses the claimed limitations of independent claims 1, 10 and 19. Claims 4-6, 13-15 are dependant claims and therefore include all of the limitations of independent claims 1, 10, from which they depend respectively. For the reasons stated above, the Esquerra reference and Applicant’s admitted prior art do not disclose every element of the dependant claims 4-6, 13-15. Thus, Applicant respectfully requests withdrawal of this rejection of the claims.

V. Rejection of Claims 2-3, 7-8, 11-12, 16-17 and 20 under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 2-3, 7-8, 11-12, 16-17 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Applicant's admitted prior art and further in view of Gould. The Applicant respectfully disagrees and traverses the Examiner's rejection.

Claims 2-3, 7-8, 11-12, 16-17 and 20 are dependant claims and therefore include all of the limitations of independent claims 1, 10 and 19, from which they depend respectively. For the reasons stated above for independent claims 1, 10 and 19, neither the Esquerra reference, Applicant's admitted prior art, the Gould reference nor any combination of the aforementioned references disclose every element of the dependant claims 2-3, 7-8, 11-12, 16-17 and 20. Thus, Applicant respectfully requests withdrawal of this rejection of the claims.

VI. Rejection of Claims 9 and 18 under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 9 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Applicant's admitted prior art and further in view of Essex. The Applicant respectfully disagrees and traverses the Examiner's rejection.

Claims 9 and 18 are dependant claims and therefore include all of the limitations of independent claims 1 and 10, from which they depend respectively. For the reasons stated above for independent claims 1 and 10, neither the Esquerra reference, Applicant's admitted prior art, the Essex reference nor any combination of the aforementioned

references disclose every element of the dependant claims 9 and 18. Thus, Applicant respectfully requests withdrawal of this rejection of the claims.

VII. Rejection of Claims 1, 4-6, 10, 13-15 and 19 under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 1, 4-6, 10, 13-15 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Newman. The Applicant respectfully disagrees and traverses the Examiner's rejection.

For the same reasons stated above for the rejection of independent claims 1, 10 and 19 under 35 U.S.C. 103(a) under Esquerra in view of the Applicant's admitted prior art, Applicant asserts that neither the Esquerra reference, the Newman reference nor any combination of the aforementioned references disclose every element of independent claims 1, 10 and 19. Claims 4-6, 13-15 are dependant claims and therefore include all of the limitations of independent claims 1, 10, from which they depend respectively. For the reasons stated above, the Esquerra reference and the Newman reference do not disclose every element of the dependant claims 4-6, 13-15. Thus, Applicant respectfully requests withdrawal of this rejection of the claims.

VIII. Rejection of Claims 2-3, 7-8, 11-12, 16-17 and 20 under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 2-3, 7-8, 11-12, 16-17 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Newman and further in view of Gould. The Applicant respectfully disagrees and traverses the Examiner's rejection.

For the same reasons stated above for the rejection of independent claims 1, 10 and 19 under 35 U.S.C. 103(a) under Esquerra in view of the Applicant's admitted prior art, Applicant asserts that neither the Esquerra reference, the Newman reference, the Gould reference nor any combination of the aforementioned references disclose every element of independent claims 1, 10 and 19.

Claims 2-3, 7-8, 11-12, 16-17 and 20 are dependant claims and therefore include all of the limitations of independent claims 1, 10 and 19, from which they depend respectively. For the reasons stated above, neither the Esquerra reference, the Newman reference, the Gould reference nor any combination of the aforementioned references disclose every element of the dependant claims 2-3, 7-8, 11-12, 16-17 and 20. Thus, Applicant respectfully requests withdrawal of this rejection of the claims.

IX. Rejection of Claims 9 and 18 under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 9 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Esquerra in view of Newman and further in view of Essex. The Applicant respectfully disagrees and traverses the Examiner's rejection.

For the same reasons stated above for the rejection of independent claims 1 and 10 under 35 U.S.C. 103(a) under Esquerra in view of the Applicant's admitted prior art, Applicant asserts that neither the Esquerra reference, the Newman reference, the Essex reference nor any combination of the aforementioned references disclose every element of independent claims 1, 10 and 19.

Claims 9 and 18 are dependant claims and therefore include all of the limitations of independent claims 1 and 10, from which they depend respectively. For the reasons

stated above for independent claims 1 and 10, neither the Esquerra reference, the Newman reference, the Essex reference nor any combination of the aforementioned references disclose every element of the dependant claims 9 and 18. Thus, Applicant respectfully requests withdrawal of this rejection of the claims.

X. Conclusion

The Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. § 103(a). The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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